

Sphagnum were found in the peat, but in the upper levels a few partially macerated cells of *Drepanocladus* mosses were observed. That the early sediments were deposited in an aquatic environment is further shown by the presence of sponge spicules and protozoan tests. Except for sponge spicules of the *Spongilla* type, and *Difflugia* tests no animal fossils were observed.

COE COLLEGE,
CEDAR RAPIDS, IOWA.

New Plant Records for West Virginia*

EARL L. CORE

(1)

Since the publication of Strausbaugh and Core's additions (1) to the Millspaugh check-list of the West Virginia flora (2) numerous new species have come to light through continued botanical explorations and herbarium studies. Additional information concerning the distribution of certain plants previously reported has been accumulated and, pending the completion of a revision of the Millspaugh check-list, now under way, it is felt that workers might welcome publication of these data.

ABIES BALSAMEA Miller. Millspaugh (3) originally referred the West Virginia blister pine to *A. balsamea* Miller. However, its characters did not seem to match exactly those of that species and he later (4) decided that the West Virginia plants belonged rather to *A. Fraseri* (Pursh) Lindl. A. B. Brooks, in his *West Virginia Trees*, also discussed this species under *A. Fraseri* (5). Core pointed out the doubtful nature of this determination (6) and Wherry (7) pronounced the plant as apparently the intermediate between the two species, named by Fernald *A. balsamea* var. *phanerolepis* (8). Fulling described a similar plant from the Blue Ridge Mountains of Virginia as *A. intermedia* (9). To one conservative enough to believe that binomials are sufficient for the ordinary individual, there is now no question but that the West Virginia plant may be correctly named *A. balsamea*.

The discovery, in May, 1938, of this tree near Stony River Dam, in Grant County, by Maurice Brooks and I. B. Boggs, brings

* Contribution No. 7 from the Herbarium of West Virginia University.

to four the number of counties in the State in which it is known to occur. Other stations are in Canaan Valley, Tucker County, Blister Swamp, Pocahontas County and Cheatbridge, Randolph County.

XYRIS TORTA Sm. The species of *Xyris* found in West Virginia was reported by Strausbaugh and Core as three distinct species, *X. caroliniana* (10), *X. arenicola* (10), and *X. flexuosa* (11). Fernald's study of our material, however, has revealed the fact that only one species is represented, the *X. flexuosa* of Chapman (12) and of most subsequent authors, including Robinson and Fernald in the 7th edition of Gray's Manual, page 263, but not of Elliott (13), who first characterized the species, Muhlenberg's earlier use of the name (14) being invalid because of lack of description. According to Rendle (15), this plant is now correctly called *X. torta* J. E. Smith (in Rees, Cycl. 39. no. 11. 1819). Raleigh County, Flat Top Mountain, *Core* 3110. Fayette County, Cotton Hill Station, *W. V. U. Bot. Exped.*

COMMELINA HIRTELLA Vahl. Near the 4-H Fair Grounds, Kanawha County, *Greenlee*. First record for the State.

YUCCA FILAMENTOSA L. Frequently escaped from cultivation, but not hitherto reported for the State. Hanging Rock, Hampshire County, *Frye*.

TRILLIUM NIVALE Riddell. Although this species is reported by Millspaugh from Monongalia, Grant, Tucker, and Randolph Counties, only one locality is represented by specimens in our herbarium, and no other station is known to the author. Pendleton County: Black Thorn Creek, near Franklin, *I. B. Boggs*.

ISOPYRUM BITERNATUM (Raf.) T. & G. Near Lesage in Cabell County, *Brooks and Margolin*. First record for the State.

AQUILEGIA COCCINEA Small. This plant, through its larger size, lanceolate, longer sepals, and follicles with erect tips, seems clearly distinct from *A. canadensis*. Specimens collected on North Fork Mountain, Pendleton County, have the sepals mostly 15 to 21 mm. long, whereas in typical *A. canadensis* they are less than 13 mm. long. Follicles of normal *A. canadensis* have widely spreading tips. *A. coccinea* is also definitely separated through its blooming season, which is characteristically mid-summer.

ACONITUM RECLINATUM Gray. Asa Gray, while on an exploring trip in the southern Appalachians in 1843 (16), discovered

on Cheat Mountain, in what is now Randolph County, West Virginia (17), a plant which he had named *A. reclinatum* (18) from its trailing habit. It is frequently found, however, as a nearly erect plant, especially if growing in a close mass of vegetation. Rydberg (19) named the erect form *A. vaccarum*, citing, as the type locality, "the east slope of Spruce Knob," Pendleton County, West Virginia. My comparison of the type specimens indicates that there is no ground for separating the Pendleton County plant; hence the name *A. vaccarum* lapses into synonymy.

ALYSSUM ALYSSOIDES L. Judy Gap, Pendleton County, *Mr. and Mrs. Davis* 1706. The first record for the State.

ARABIS GLABRA (L.) Bernh. Along Dunkard Creek, near Core, Monongalia County, *Strausbaugh and Core*; Davenport, Tyler County, *Berkley*; Pink, Calhoun County, *Harris*. Not in Mills-paugh.

POLANISIA GRAVEOLENS Raf. Growing in ballast at Nitro, Putnam County, *Strausbaugh*. First record for the State.

POLANISIA TRACHYSPERMA T. and G. Growing in ballast at Nitro, Putnam County, *Strausbaugh*. First record for the State.

SPIRAEA JAPONICA L. f. Abundantly escaped from cultivation in the Swiss community of Helvetia, Randolph County, *Mr. and Mrs. Davis* 1405. First record for the State.

CORONILLA VARIA L. Escaped from cultivation near Hanging Rock, Hampshire Co., *Frye*. First record for the State.

VIOLA PRICEANA Pollard. Along Lunice Creek in Grant County, *Mr. and Mrs. Davis* 2467. This plant is regarded by Brainerd as an albino form of *V. papilionacea* but Small calls attention to the fact that in that species the flowers are violet with a white center while in *V. Priceana* the condition is reversed.

HARPERELLA VIVIPARA Rose. No species of *Harperella* was known in the range of Gray's Manual at the time of the appearance of the 7th edition, Rose's plant not being described until 1911. (20). Britton and Brown (2nd edition, 1913) reported it as found on the "banks of the Potomac River, Maryland." The plant was first discovered in West Virginia by Strausbaugh, being found in abundance along Sleepy Creek, Morgan County, July 8, 1938.

TORILIS ANTHRISCUS (L.) Gmel. In calcareous soil, weedy roadside, 3 mi. s.e. of Charles Town, Jefferson County, *E. T. Wherry*, July 23, 1933. First record for the State.

PYROLA CHLORANTHA Sw. Camp Frame, Berkeley County, *H. Ison Shreve*, May 28, 1937. First record for the State.

PHLOX OVATA L. Grant County: Mt. Storm, *Mr. and Mrs. Davis*, 1731. Summers County: near Big Bend Tunnel, *Boone* 125. Greenbrier County: White Sulphur Springs, *W. V. U. Bot. Exped.* Hardy County: near Moorefield, *Gamble*. Not in Millspaugh.

SALVIA LANCEAEFOLIA Poir. Grant County: Cabins, *Mr. and Mrs. Davis* 1778. Gray's Manual records this species as occurring on plains and open soil, Indiana to Nebraska, Texas, and Arizona, and introduced at Columbus, Ohio. The Cabins record is the first for West Virginia.

LINARIA MINOR (L.) Desf. This weed, introduced from Europe, was discovered by Strausbaugh growing in ballast at Nitro, Putnam County.

MARTYNIA LOUISIANA Mill. An occasional weed in gardens in this State. Tucker County: Parsons, *Headley*. Kanawha County, Charleston, *Sheldon*. Monongalia County: Morgantown, *Peairs*.

SOLIDAGA HARRISII Steele. (Contrib. U. S. Nat'l Herb. 13: 369. 1911.) Monroe County: Slaty Mt., *W. V. U. Bot. Exped.* Hampshire County: *Sharp*. Grant County: *Mr. and Mrs. Davis*. Although reduced by Britton and Brown (21) to synonymy under *S. arguta*, this plant seems clearly distinct from its lower stature and broader panicle, its shorter and more dilated leaves, its more broadly winged petioles, and its much earlier blooming season. Specimens in bloom have been collected in Grant County as early as June 10.

WEST VIRGINIA UNIVERSITY,
MORGANTOWN, W. VA.

Literature cited

1. Some additions to the Millspaugh check-list of West Virginia Spermatophytes. Proc. W. Va. Acad. Sci. 4: 38-48. 1930. Additions to the Millspaugh check-list of West Virginia Spermatophytes. Proc. W. Va. Acad. Sci. 9: 29-31. 1936.
2. The living flora of West Virginia. W. Va. Geol. Surv. 5(A): 1-389, 454-487. 1913.
3. Bull. W. Va. Agr. Exp. Sta. 2: 477. 1892.
4. W. Va. Geol. Surv. 5(A): 201. 1913.
5. Bull. W. Va. Agr. Exp. Sta. 175: 45. 1920
6. *Torreya* 34: 92, 93. 1934.
7. *Ecology* 15: 442. 1934.

8. *Rhodora* 11: 201-203. 1909.
9. *Castanea* (Jour. South. Appal. Bot. Club) 1: 93. 1936.
10. Proc. W. Va. Acad. Sci. 4: 43. 1930.
11. Proc. W. Va. Acad. Sci. 9: 30. 1936.
12. *Flora*, ed. 1: 500. 1860.
13. Sketch 1: 51. 1816.
14. Cat. 5: 1813.
15. Jour. Bot. 37: 498, 499.
16. Letters of Asa Gray, pp. 307-312.
17. The 7th edition of Gray's Manual, published in 1908, still accredited Cheat Mountain to Virginia, although it had been West Virginia territory for 45 years.
18. Am. Jour. 42: 34. 1842.
19. *Torreyia* 26: 31. 1926.
20. Contrib. U. S. Nat'l Herb. 12: 290. 1911.
21. Illus. *Flora* 3: 393. 1913.

Guide to the Lichens of the New York Area—Part 5

G. G. NEARING
ESS

Group 7. The Leather Lichens. Papery Lichens most of which have an upper surface looking somewhat like finished leather, while the under surface resembles the unfinished side of leather. Varying from large mats of radiating trunks and branches with broad tips, to small, scattered, saucer-shaped or fan-shaped fragments. Algal cells mostly in chains, but the chains short and imperfect. Fruits light red to brown or blackish. Spores long and narrow, colorless or brownish, divided into 2 or more cells.

Key to the 4 genera

- Fruits saucer-shape, on the upper surface.....*Sticta*
 Fruits saucer-shape, sunk in marked depressions of the upper surface*Solorina*
 Fruits on the under surface of special marginal lobes which fold upward*Nephroma*
 Fruits on the upper surface of special marginal lobes. Under surface with thickened veins*Peltigera*

Sticta. The name means "speckled," referring to pale dots on the under surface, but the genus as used here includes 3 species which lack the speckling, and are sometimes placed in a genus *Lobaria*, a subdivision which seems unnecessary. The under sur-